UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

SENT VIA ELECTRONIC MAIL

Will Ownby
Environmental Manager
Gerdau AmeriSteel U.S. Inc.
801 Gerdau Drive
Jackson, Tennessee 38305
William.Ownby@Gerdau.com

Dear Mr. Ownby:

On June 7, 2022, the U.S. Environmental Protection Agency Region 4, Air Enforcement Branch, conducted a partial compliance inspection of Gerdau AmeriSteel U.S. Inc., located in Jackson, Tennessee. Enclosed is a copy of the final report generated by the U.S. Environmental Protection Agency's Region 4, North Air Enforcement Section.

Should you have questions regarding this inspection report, contact me at (404) 562-9177, or by email at Rieck.Stephen@epa.gov.

Sincerely,

STEPHEN RIECK
Digitally signed by STEPHEN RIECK
Date: 2022.08.30 08:09:43 -04'00'

Steve Rieck
Environmental Scientist
North Air Enforcement Section

CC: Martie Carpenter, TDEQ

United States Environmental Protection Agency (EPA) Region 4
Air Enforcement Branch
Inspection Report

I. GENERAL INFORMATION

Facility Name: Gerdau AmeriSteel U.S., Inc.

Location: 801 Gerdau Drive
Jackson, Tennessee 38305

Inspection Date: June 7, 2022

Type of Inspection (Full or Partial Compliance Evaluation):
Partial Compliance Evaluation

ICIS-Air Number: TN0000004711300189

EPA Region 4 Investigator(s)/Inspector(s):
1. Sydnee Adams, Environmental Engineer
2. Stephen Rieck, Environmental Scientist
3. Andrew Mills, Environmental Engineer

State/Local Investigator(s)/Inspector(s):
1. Terri Ledsinger, Environmental Specialist

Person(s) Contacted at Facility (Name and Title):
1. Will Ownby, Environmental Manager
2. Melanie Summarell, Environmental Specialist

Report Prepared by: Sydnee Adams

II. FACILITY INFORMATION

A. Facility and Permit Information

Facility and Permit Information	Comments
1. Type of facility (e.g., chemical plant, refinery, cement manufacturer, etc.).	Scrap Steel Shredding Operation with Ferrous and Non-ferrous Separation
2. Air permit number(s) and type of permit (e.g., Title V, PSD, Synthetic Minor, etc.).	Air Quality permit number 574449
3. Air permit issuance date.	December 11, 2019
4. Air permit expiration date.	December 10, 2024
5. Facility classification (Major, Synthetic Minor/Conditional Major, Minor).	Major Source
6. Major source pollutants (if applicable).	N/A
7. Applicable regulations (e.g., State Implementation Plan, MACT Subpart FFFF, NSPS Subpart EEEE, etc.).	State Implementation Plan 40 C.F.R. Part 82
8. Types of air emission points (e.g., tanks, process vents, boilers, etc.).	Scrap Steel Shredding Operation with Ferrous and Non-ferrous Separation
9. Types of air pollution control equipment (e.g., baghouse, scrubber, afterburner, etc.).	Cyclone and Baghouse

B. Process Description

The Gerdau AmeriSteel U.S. Inc., (referred hereafter as "Gerdau") facility is a steel scrap recycling mill located at 801 Gerdau Drive, Jackson, Tennessee 38305. The process operation consists of: 1) steel scrap shredder followed by ferrous and non-ferrous separation with four sorting hubs; 2) electric arc furnace; 3) preheaters; 4) reheat furnace,

and 5) product straightener process line. This inspection only covered the shredder and separation operations.

Ferrous and non-ferrous metals, as well as Auto Shredder Residue (ASR), are separated by various methods including magnetic separation. Emissions from the separation of ASR are controlled with a cyclone. Non-ferrous material handling and separation processes that receive shredded material from the outlet of the existing scrap shredder, direct non-ferrous materials to the new sorting hubs. The shredded metal infeed to the hubs will come from the existing steel scrap shredder or other steel scrap providers and an on-site landfill. The sorted product will initially be stored in piles of uniformly sized materials and then will either be used in the existing steel melting process or be shipped offsite to customers. Source includes four (4) stand-alone sorting hubs with conveyor belts, separators, and destoners to separate miscellaneous metals including ferrous materials, insulated copper wire, copper, Zurik (primarily stainless steel), Zorba (primarily Aluminum) and non-ferrous microfines. A shared cyclone and baghouse system controls particulate matter emissions from the destoners.

The facility's shredder is an electrically powered, The Shredder Company SXS 124, 8000 horsepower metal shredder with a max output of 300 tons/hr, which has the capacity to shred automobiles and large scrap metal. The facility employs a smart water system on the shredder for fire suppression purposes reducing heat and preventing fires. The current allowable particulate matter (PM) emission rate from the shredder and the ferrous separation cyclone is 25 pounds per hour and 26 tons per year. Gerdau has also agreed to limit the hours of operation to 2,080 hours per year.

III. INSPECTION ACTIVITIES

Activity	Yes No NA	Comments
Opening Meeting		
1. Date and time entered the facility.	Y	EPA Region 4 (R4) inspectors arrived at the facility on June 7, 2022, at 8:35 AM CDT.
2. Credentials presented to facility personnel (include name and title).	Y	All inspectors presented their credentials to Will Ownby, Environmental Manager.

Activity	Yes No NA	Comments
3. Conducted an opening meeting to explain the purpose and objectives of the inspection.	Y	Inspectors held an opening meeting at the facility with Will Ownby and Melanie Summarell on June 7, 2022, at 8:40 AM CDT, during which the purpose and objectives of the inspection were explained.
4. Discussed safety issues.	Y	Inspectors discussed facility-specific safety and emergency procedures, including procedures for COVID-19 safety during the inspection.
5. Discussed which records to be reviewed.	Y	Records were requested and reviewed during the inspection. These records are listed in Item 10 below.
6. Discussed the facility walk-through and the areas to be observed in the facility.	Y	Inspectors conveyed that they were primarily interested in inspection of the metal shredder operation and refrigerant handling procedures. EPA R4 let Gerdau know that they would be using a digital camera.
7. Discussed facility policy regarding photographs or video (if applicable).	Y	R4 inspectors discussed the facility policy regarding photography and videography. Inspectors indicated that copies of any videos or photographs taken at the facility would be sent to the company. A log of photographs taken at the facility is included in this report. **See Attachment A**.
8. Discussed the use of the infrared camera, TVA, PID, and any other equipment.	N/A	
9. Discussed CBI.	Y	R4 inspectors indicated that any material claimed to be Confidential Business Information (CBI) would be treated in accordance with regulations.
Records Reviewed at the Facility		

Activity	Yes No NA	Comments
10. The types of records reviewed, and the time period reviewed.	Y	The following records were obtained from the facility and reviewed. • Satellite photo of facility • Plant safety guidelines • April 2022 shredder operations report (CBI) • May 2022 shredder operations report (CBI) • May 2022 shredder inventory (CBI) • CFC technician certification • May 2022 refrigerant usage log • Ferrous material yield (CBI) • Signature page associated with shredder guidelines • Printed email with car bodies input for 2022 • Printed email with car bodies and incomplete cars input for 2021 (CBI)
Facility Walk-Through Observations		
11. The process equipment observed and the associated operational rate observed	Y	Beginning at approximately 11:05 AM CDT, R4 inspectors safely observed the following process areas from a Gerdau vehicle: the metal shredder operations, shredded scrap separation processes, scrap inspection process, and scrap sorting piles.
12. The type of process parametric monitoring observed and the associated value observed	N/A	

Activity	Yes No NA	Comments
13. If process equipment or parametric monitoring equipment was not operating, state the reason by facility personnel why the equipment was not operating.	N/A	
14. The type of air pollution control equipment, the process equipment it is controlling, and the associated parametric monitoring value observed.	Y	The facility operates a smart water system at the shredder. The primary function is heat reduction. The facility operates a cyclone and baghouse at the shredder and separation processes to reduce particulate matter emissions.
15. Continuous emissions monitoring devices and values observed. (e.g., CEMS, COMs, etc.).	N/A	
16. If air pollution control equipment was not operating, state the reason by facility personnel why the equipment was not operating.	N/A	
17. Capture and collection system (enclosures and hoods) observations, if applicable (e.g., the magnitude and duration of emission escaping capture from the hood).	Y	The cyclone exhaust flowrate is 23,225 dscfm. The cyclone exhaust PM concentration per process weight rate is 0.23 gr/dscf. The resulting exhaust concentration based on the agreed hourly mass rate of 25 lbs/hr is 0.13 gr/dscf.

Activity	Yes No NA	Comments
18. Ductwork transferring the emissions to the air pollution control device observations, if applicable (e.g., the magnitude and duration of emission escaping from the ductwork, holes or deterioration in ductwork, no deterioration observed, etc.).	N/A	
19. Any existing unpermitted emission points, new unpermitted emission points, or non-permitted construction activities observed. (if yes, describe in the comments field).	N	The company was informed of the EPA's potential concern of VOC emissions from metal shredders.
20. Were any visible emissions observed? (if yes, identify the location and equipment).	N	
21. Was a Method 9 reading performed? (if yes, identify the location and equipment).	N	
22. Was the cause of the visible emissions investigated and the information documented?	N/A	
23. Was a Method 22 performed for visible emissions? (if yes, identify the location and equipment).	N	

Activity	Yes No NA	Comments
24. Identify the cause of the visible emissions as explained by facility personnel, if applicable.	N/A	
25. Was the infrared camera used? If so, attach the video log (which includes the equipment ID, and the date and time the video was recorded) and videos to this report.	N	R4 inspectors did not use an infrared camera at the facility.
26. Was the TVA used? If so, identify the equipment monitored and the results.	N	R4 inspectors did not use a TVA at the facility.
27. Was the PID used? If so, identify how the PID was used and the results.	N	R4 inspectors did not use a PID at the facility.
Closing Meeting		
28. Conducted a closing meeting.	Y	R4 inspectors conducted a closing meeting on June 7, 2022, at 12:35 PM CDT with Gerdau employees.
29. Summarize any additional information needed, if applicable?	Y	The facility was informed of EPA's ability to use Clean Air Act (CAA) section 114 authority to request additional records at a future date if needed.
30. Accept a declaration of CBI, if applicable?	N/A	
31. Discussed observations.	Y	Inspectors thanked facility personnel for their time and summarized inspection activities. The company was informed of the EPA's potential concern of VOC emissions from metal shredders.
32. Discussed next steps, if applicable?	Y	A final inspection report from EPA Region 4 will be sent to the company within a 60-day timeframe. Document requests were discussed.

Activity	Yes No NA	Comments
33. Date and time inspection concluded.		The inspection concluded on June 7, 2022 at approximately 12:55 PM CDT.
Miscellaneous		
34. Include any additional observations, if applicable.	N/A	

EPA Investigator/Inspector Signature: STEPHEN RIECK Digitally signed by STEPHEN RIECK Date: 2022.08.30 08:10:25 -04'00'

EPA Supervisor Signature & Title: JASON DRESSLER Digitally signed by JASON DRESSLER Date: 2022.08.30 15:41:46 -04'00'

Chief, North Air Enforcement Section

ATTACHMENTS

1. Attachment A: Inspection Photograph Log

Attachment A: Inspection Photograph log

During the June 7, 2022, inspection, EPA Region 4 staff used a digital camera to take photographs at the Gerdau facility located in Jackson, TN. Below is an inventory of the footage.

Table 1: Photographs taken during the June 7, 2022, inspection.

File Number	Media Description
P6070419.jpg	Radiation detector and weigh station
P6070420.jpg	Mix 1 and 2 scrap
P6070421.jpg	Shredder input conveyor
P6070422.jpg	Shredder input and trommel in background
P6070423.jpg	Shredder feed pile
P6070424.jpg	Cyclone
P6070425.jpg	Shred pile
P6070426.jpg	Conveyor from shredder and non-ferrous material